Vaginal Delivery Safety Checklist.

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Background & Significance

- One of the most identified root causes of perinatal injury and death is lack of communication amongst the health care team -True, B. A. et al (2016)
- There are current checklists available for cesarean delivers, but not for vaginal deliveries.
- The checklist facilitates communication among team members during labor to identify woman at risk for shoulder dystocia (SD), postpartum hemorrhage (PPH), infants at risk for requiring neonatal resuscitation (NRP) at birth, or cord prolapse -True, B. A. et al (2016)
- The goal of utilizing the Vaginal Delivery Safety Checklist on the L&D unit is to help facilitate effective communication in order to prepare for SD, PPH, NRP. or a cord prolapse.

Evidence

- In an evaluation health care teams rated effectiveness, ease of use, and convenience of the checklist on a 7 point scale -True, B. A. et al (2016)
  - Effectiveness: 4.5
  - Ease of use: 6.0
  - Convenience: 4.9
- “When the checklist was used, team members believed that details for care were noticed that ordinarily would have been missed” -True, B. A. et al (2016)
- Use of checklists help decrease cognitive load, therefore facilitating situational awareness –Edozien, L. C. (2015)
- Researchers demonstrated that communication error, inadequate assessments are some of the top root causes for perinatal and maternal death and injury – The Joint Commission (2015)
- Collaboration is strongly related to positive outcomes – Raab, C. A. et al (2012)

PICO

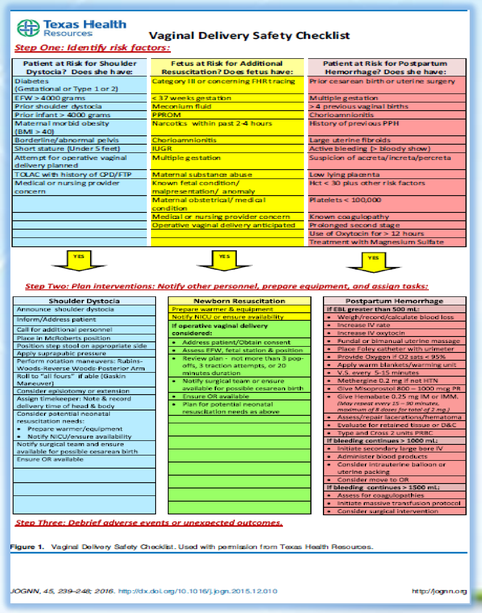
- PICO Question – Will the use of the collaborative safety checklist for vaginal deliveries help Medical Care Providers, L&D, and NICU nurses be more prepared for complications at the time of delivery?

P- Medical Care Providers, L&D, and NICU nurses

I - Education VS no education

C- No checklist VS use of the checklist

O- Staff’s response to the Vaginal Delivery Safety checklist via survey.



Texas Health Resources

Vaginal Delivery Safety Checklist

Step One: Identify risk factors:

Patient at Risk for Shoulder Dystocia? Does she have:	Fetus at Risk for Additional Resuscitation? Does fetus have:	Patient at Risk for Postpartum Hemorrhage? Does she have:
Diabetes (Gestational or Type 1 or 2)	Category III or concerning FHR tracing	Prior cesarean birth or uterine surgery
EFW > 4000 grams	< 37 weeks gestation	Multiple gestation
Prior shoulder dystocia	Meconium fluid	> 4 previous vaginal births
Prior infant > 4000 grams	PPROM	Chorioamnionitis
Maternal morbid obesity (BMI > 40)	Narcotics within past 2-4 hours	History of previous PPH
Borderline/abnormal pelvis	Chorioamnionitis	Large uterine fibroids
Short stature (Under 5 feet)	IUGR	Active bleeding (> bloody show)
Attempt for operative vaginal delivery planned	Multiple gestation	Suspicion of accreta/increta/percreta
TOLAC with history of CPD/FTP	Maternal substance abuse	Low lying placenta
Medical or nursing provider concern	Known fetal condition/ malpresentation/ anomaly	Hct < 30 plus other risk factors
	Maternal obstetrical/ medical condition	Platelets < 100,000
	Medical or nursing provider concern	Known coagulopathy
	Operative vaginal delivery anticipated	Prolonged second stage
		Use of Oxytocin for > 12 hours
		Treatment with Magnesium Sulfate

YES YES YES

Step Two: Plan interventions: Notify other personnel, prepare equipment, and assign tasks:

Shoulder Dystocia	Newborn Resuscitation	Postpartum Hemorrhage
Announce shoulder dystocia	Prepare warmer & equipment	If EBL greater than 500 mL:
Inform/Address patient	Notify NICU or ensure availability	• Weigh / record / calculate blood loss
Call for additional personnel	If operative vaginal delivery considered:	• Increase IV rate
Place in McRoberts position	• Address patient/Obtain consent	• Increase IV oxytocin
Position step stool on appropriate side	• Assess EFW, fetus station & position	• Fundal or bimanual uterine massage
Apply suprapubic pressure	• Review plan – not more than 3 pop-offs, 3 traction attempts, or 20 minutes duration	• Place Foley catheter with urimeter
Perform rotation maneuvers: Rubins-Woods-Reverse Woods Posterior Arm	• Notify surgical team or ensure available for possible cesarean birth	• Provide Oxygen if O2 sats < 95%
Roll to “all fours” if able (Gaskin Maneuver)	• Ensure OR available	• Apply warm blankets/warming unit
Consider episiotomy or extension	• Plan for potential neonatal resuscitation needs as above	• V.S. every 5-15 minutes
Assign timekeeper: Note & record delivery time of head & body		• Methergine 0.2 mg if not HTN
Consider potential neonatal resuscitation needs:		• Give Misoprostol 800 – 1000 mcg PR
• Prepare warmer/equipment		• Give Hemabate 0.25 mg IM or IMM. (May repeat every 15 – 90 minutes, maximum of 8 doses for total of 2 mg.)
• Notify NICU/ensure availability		• Assess/repair lacerations/hematoma
Notify surgical team and ensure available for possible cesarean birth		• Evaluate for retained tissue or D&C
Ensure OR available		• Type and Cross 2 units PRBC
		If bleeding continues > 1000 mL:
		• Initiate secondary large bore IV
		• Administer blood products
		• Consider intrauterine balloon or uterine packing
		• Consider move to OR
		If bleeding continues > 1500 mL:
		• Assess for coag/dopathies
		• Initiate massive transfusion protocol
		• Consider surgical intervention

Step Three: Debrief adverse events or unexpected outcomes.

Figure 1. Vaginal Delivery Safety Checklist. Used with permission from Texas Health Resources.

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Implementation

- Education on the Vaginal Delivery Safety Checklist via TLC.
- A survey given to the nursing staff before implementation of the checklist.
- A post survey after implementation of the Vaginal Delivery Safety Checklist to be given to the nursing staff in the future.
- Implementation of the Vaginal Delivery Safety Checklist was trialed in a simulation and was well received by the nursing staff and physicians.

Next Steps

- Develop a policy and procedure for implementing the Vaginal Delivery Safety Checklist into everyday practice.
- Future implementation of the vaginal delivery safety checklist into EPIC.

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